

HTML5 WebApps

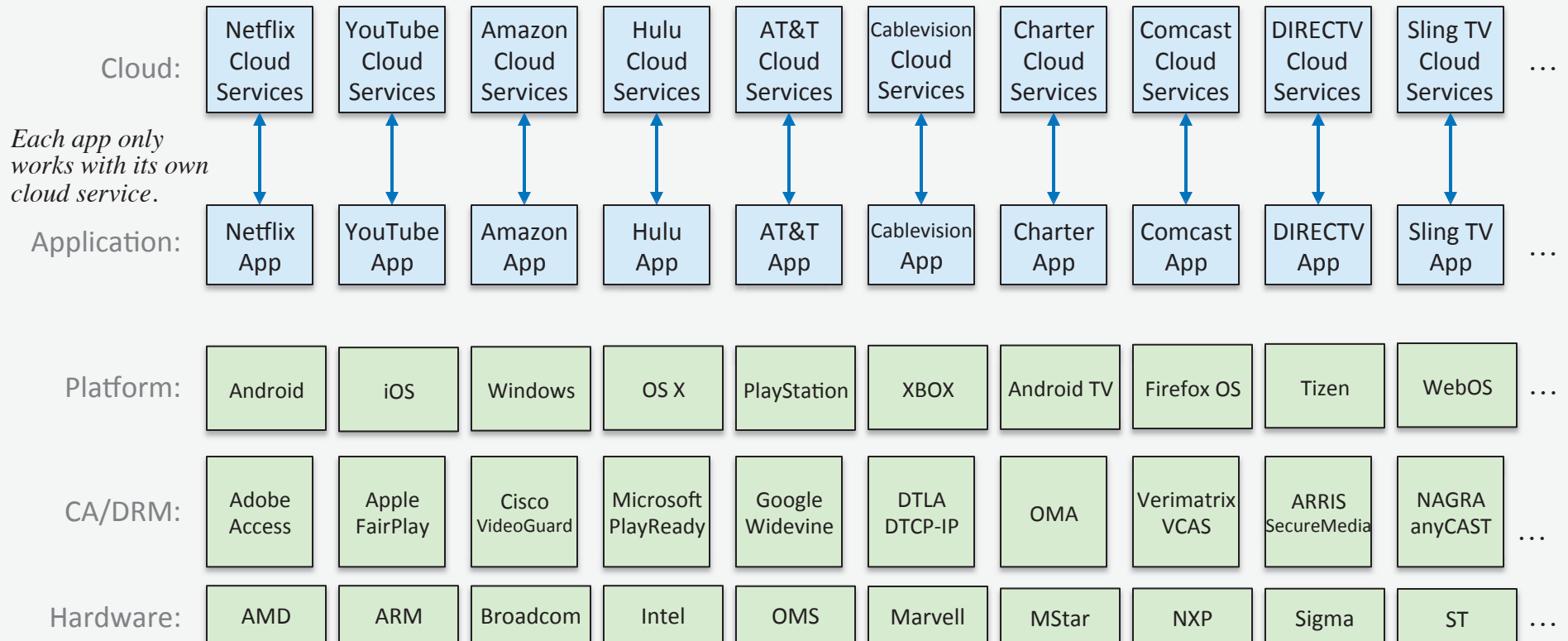
FCC DSTAC WG 4



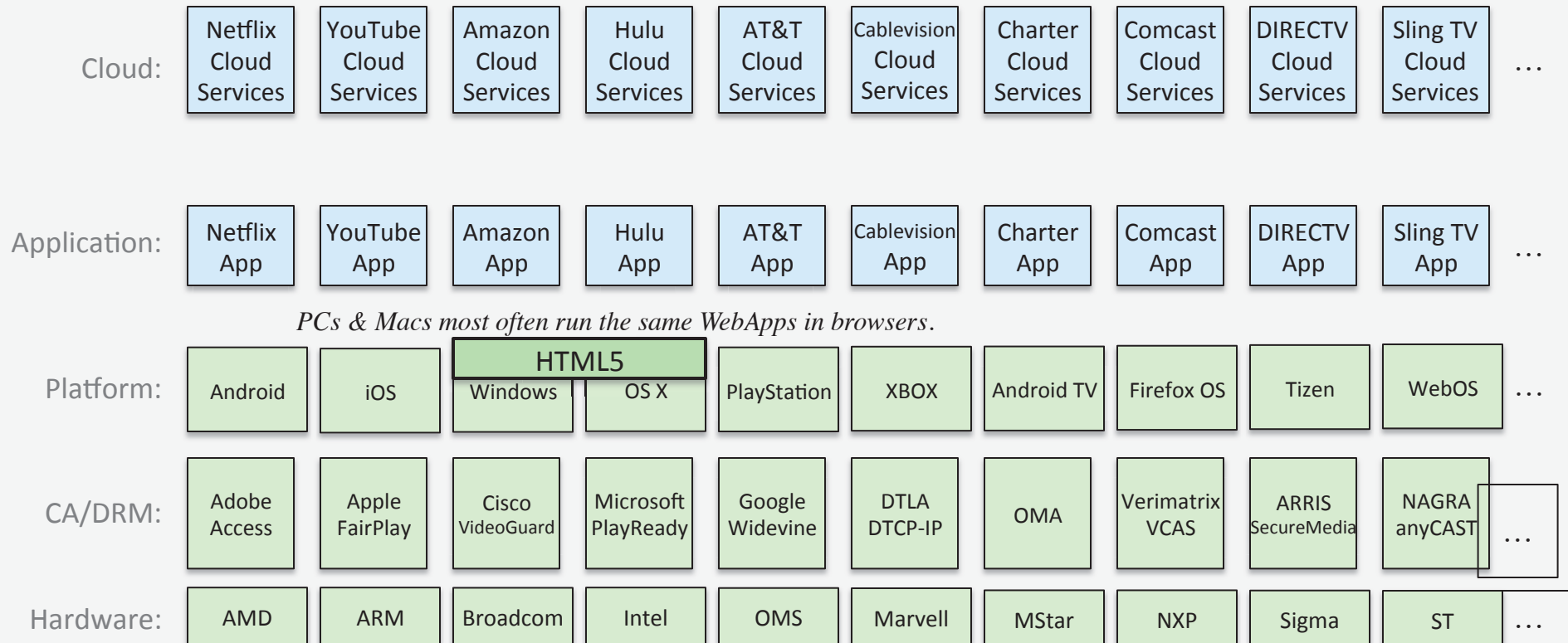
Diversity of Solutions and Standardization

Cloud:	Netflix Cloud Services	YouTube Cloud Services	Amazon Cloud Services	Hulu Cloud Services	AT&T Cloud Services	Cablevision Cloud Services	Charter Cloud Services	Comcast Cloud Services	DIRECTV Cloud Services	Sling TV Cloud Services	...
Application:	Netflix App	YouTube App	Amazon App	Hulu App	AT&T App	Cablevision App	Charter App	Comcast App	DIRECTV App	Sling TV App	...
Platform:	Android	iOS	Windows	OS X	PlayStation	XBOX	Android TV	Firefox OS	Tizen	WebOS	...
CA/DRM:	Adobe Access	Apple FairPlay	Cisco VideoGuard	Microsoft PlayReady	Google Widevine	DTLA DTCP-IP	OMA	Verimatrix VCAS	ARRIS SecureMedia	NAGRA anyCAST	...
Hardware:	AMD	ARM	Broadcom	Intel	OMS	Marvell	MStar	NXP	Sigma	ST	...

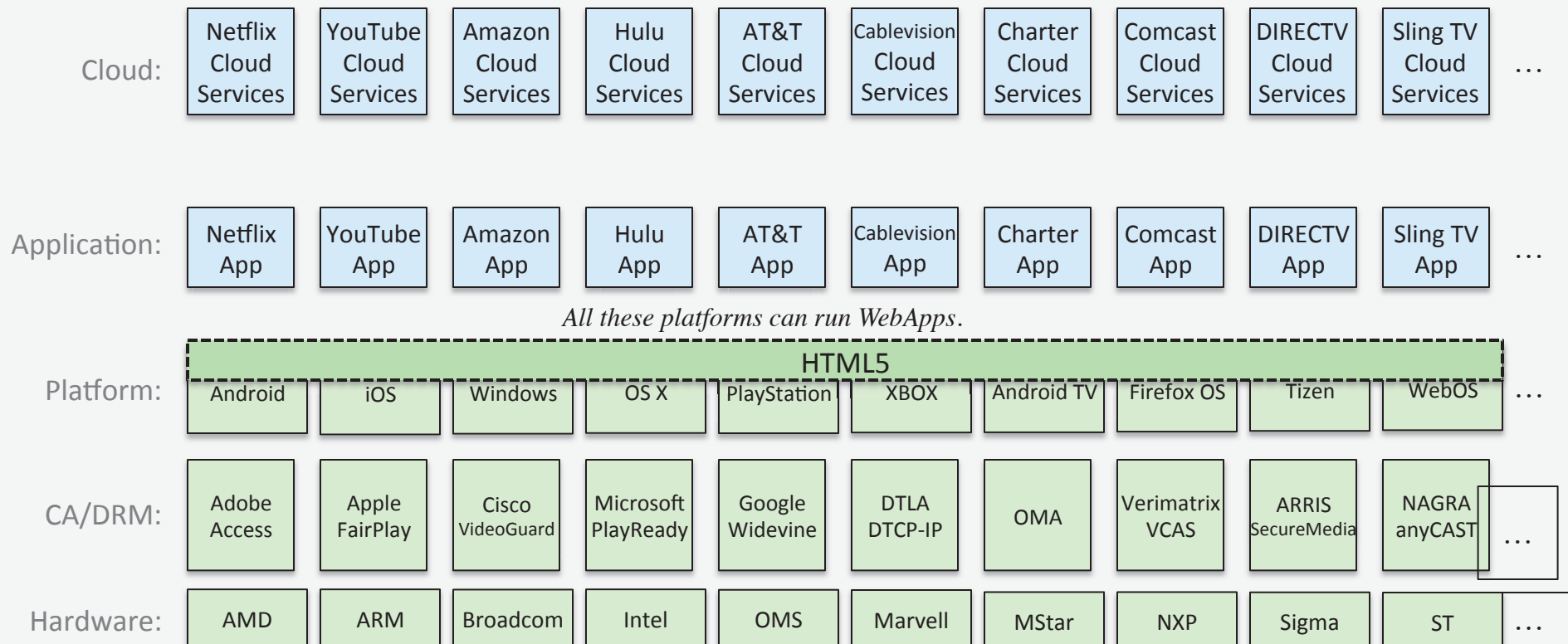
Diversity of Solutions and Standardization



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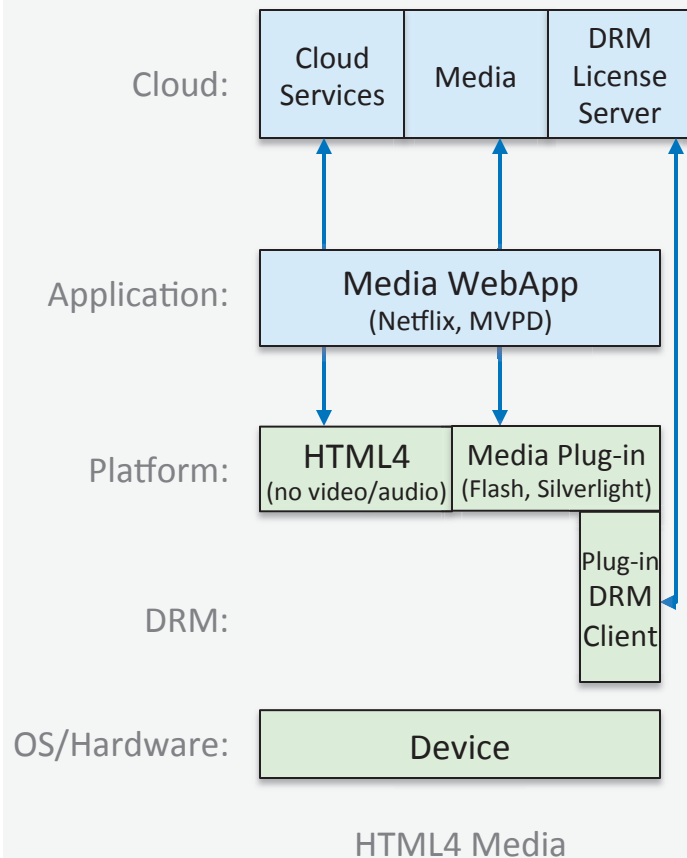
Diversity of Solutions and Standardization



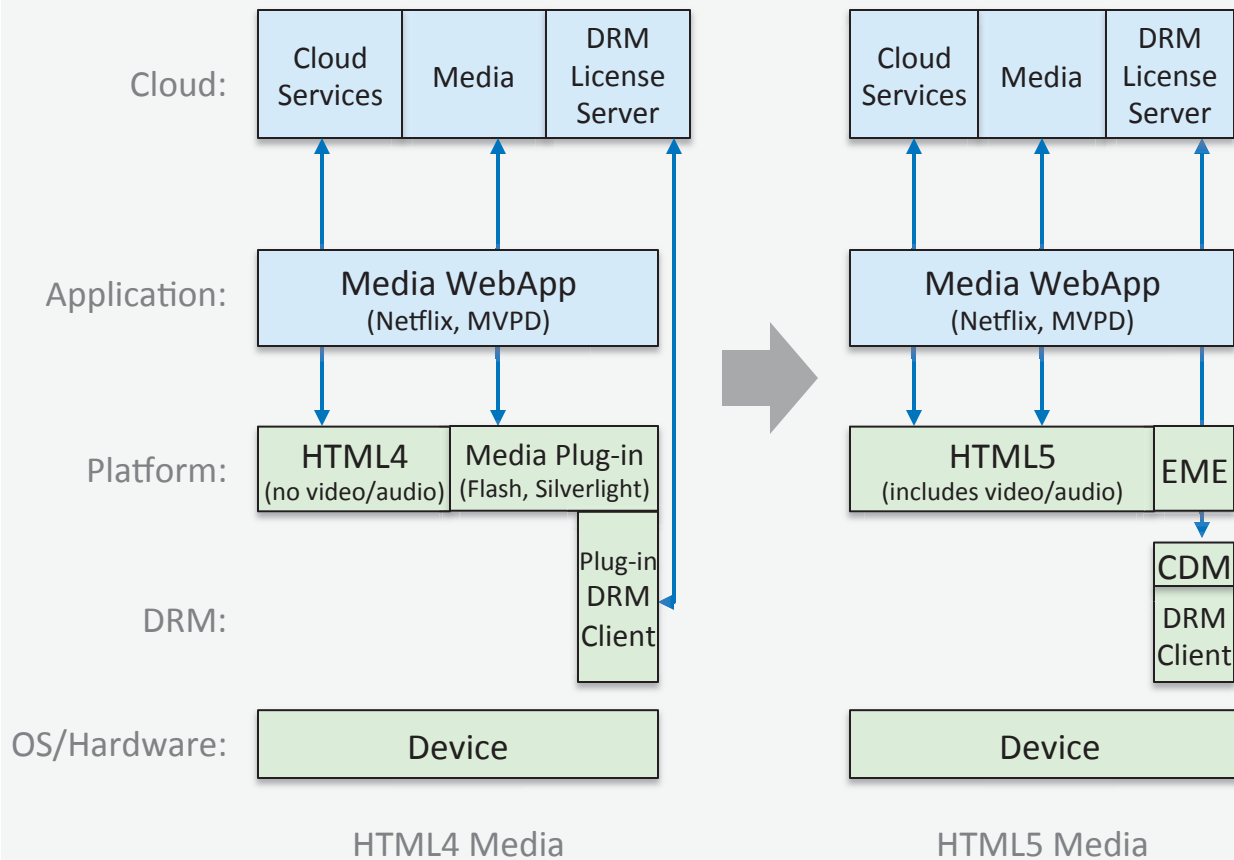
W3C HTML5

- HTML: the language of the Web
- HTML5: fifth revision of HTML by the World Wide Web Consortium (W3C)
 - Key feature: Media
- Adopted by all browsers (Apple Safari, Google Chrome, Microsoft Internet Explorer, Mozilla Firefox, Opera)
- Early usage by Netflix, YouTube
- In TV Standards: DLNA VidiPath, ATSC 3.0, HbbTV
- Supported on STBs, PC, mobile, smart TVs and other platforms
- License: Royalty Free

Media WebApps: HTML4 to HTML5



HTML4 to HTML5 + EME



EME = Encrypted Media Extensions

CDM = Content Decryption Module

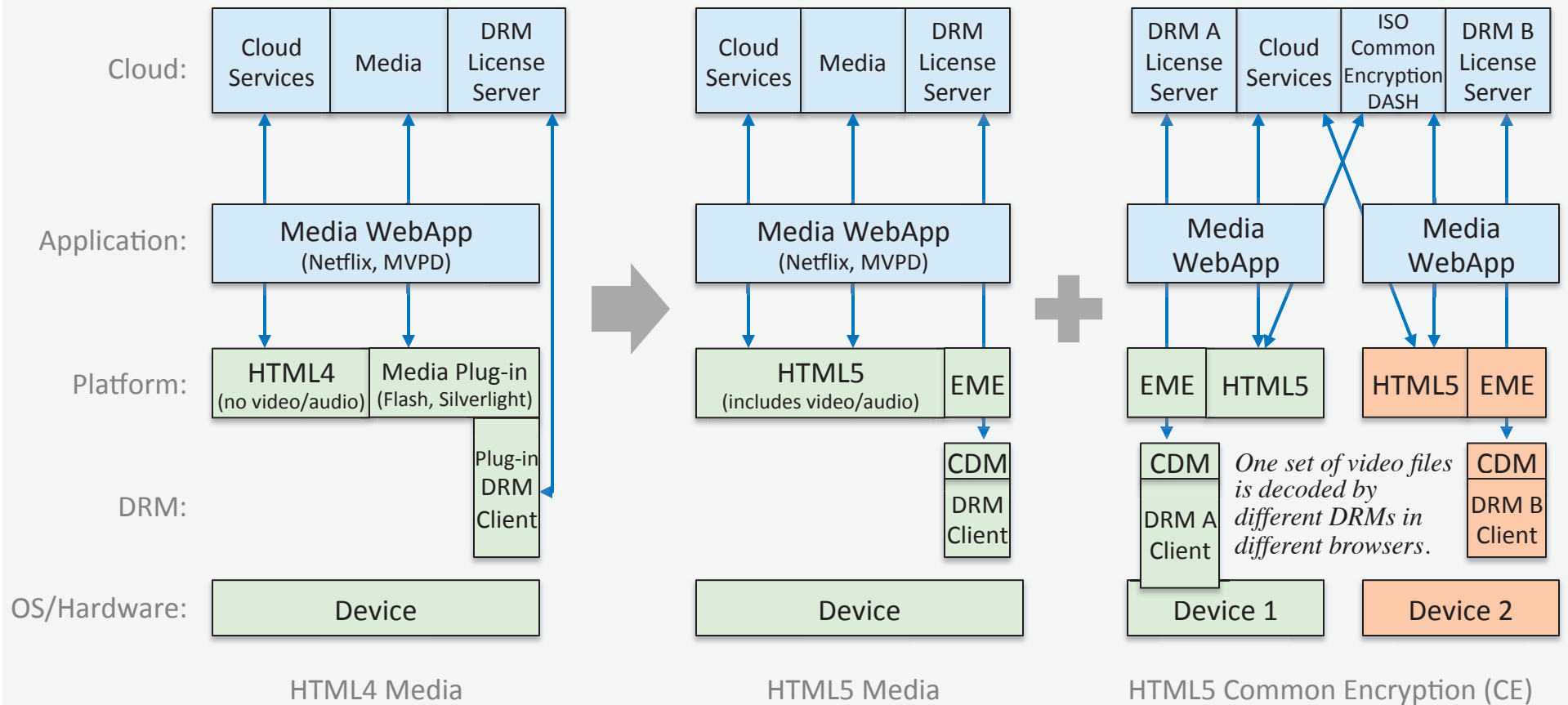
CDM only decodes media.

- No user authentication (done by WebApp)
- No tuning (done by WebApp)
- No server connection (via WebApp)

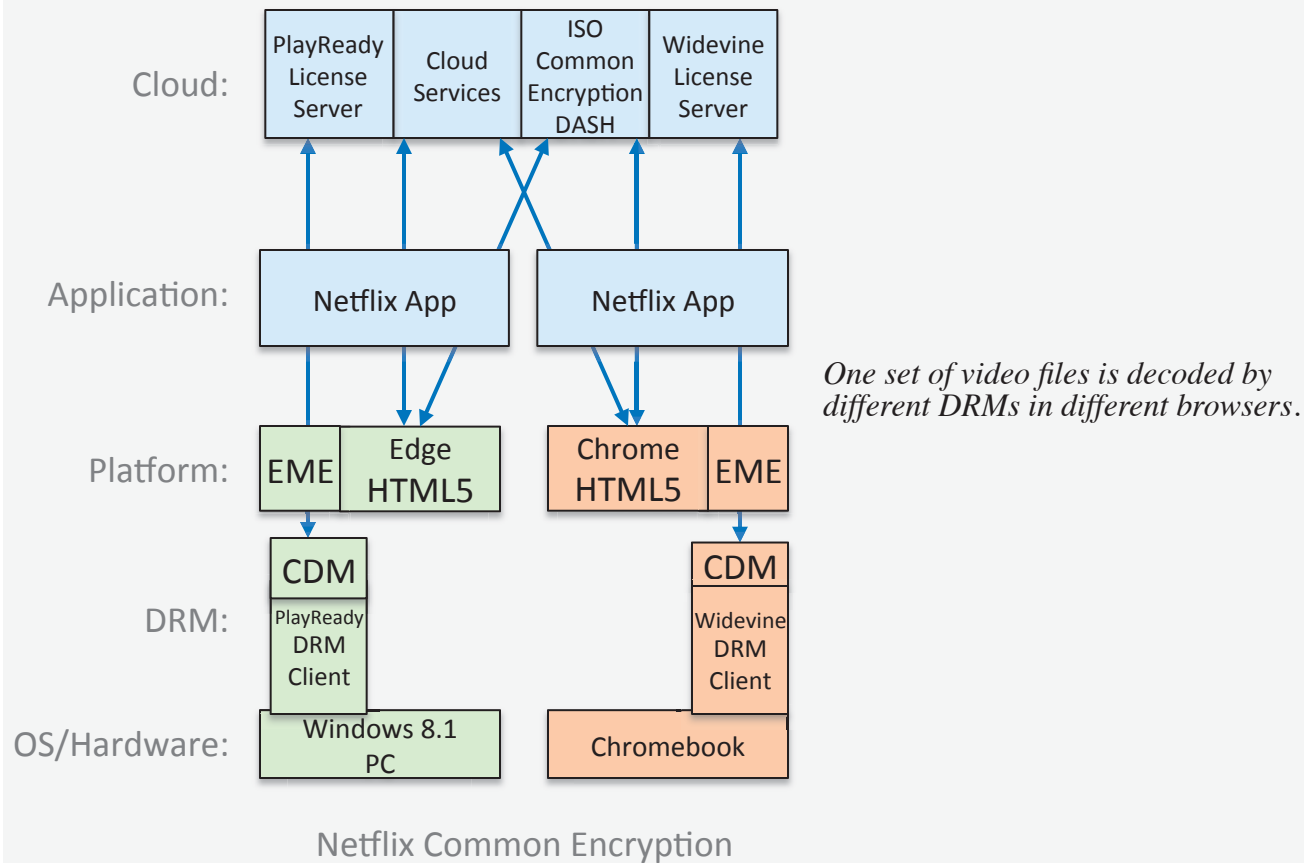
CDM may be:

- Software-only, or
- Include hardware root of trust

HTML4 to HTML5 + EME

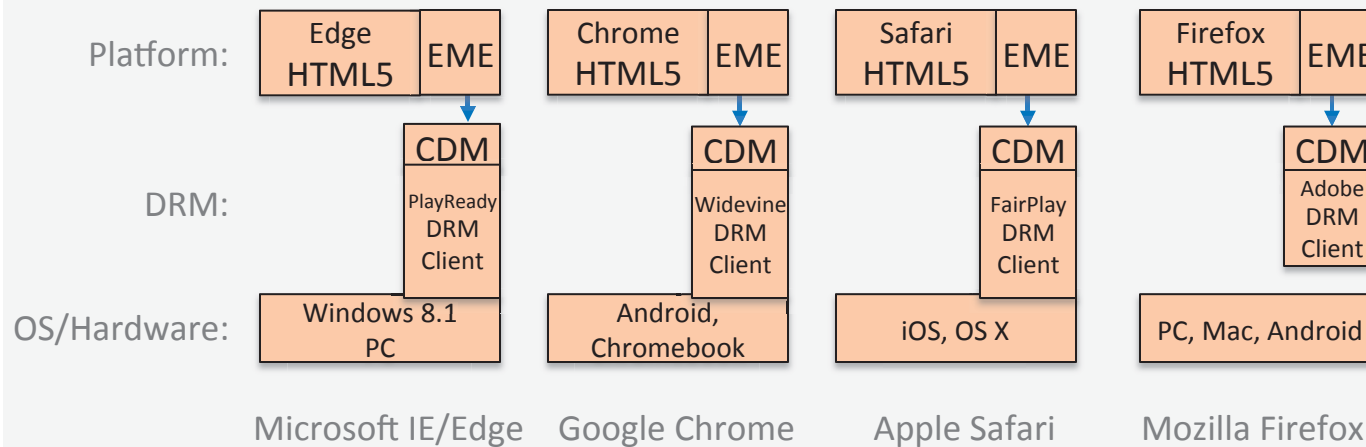


HTML5 Deployment: Netflix



HTML5 Deployment: Browsers

Most HTML5 browsers currently support only one DRM.



HTML5/EME can support multiple DRMs in a single browser.

